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| 10/799,874   | 03/15/2004  | Sylvia Monsheimer    | 249107US0           | 8347             |
| 22850  | 7590        | 06/04/2009           |                     |                  |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| TENTON, LEO B  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 1791   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/799,874

**Applicant(s)**

MONSHEIMER ET AL.

**Examiner**

Leo B. Tentoni

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-31 is/are pending in the application.
- 4a) Of the above claim(s) 20-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-19 and 26-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 11052008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 20-25 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 23 August 2006.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 8, 9, 12-14 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkinson et al (U.S. Patent Application Publication 2006/0180957 A1) in combination with Droscher et al (U.S. Patent 6,243,616 B1) and either Zhu et al (U.S. Patent 6,833,185 B2) or Wills et al (U.S. patent 6,900,254 B2).

Hopkinson et al (see the entire document, in particular, paragraph [0039] - [0067] and [0082]) teaches a process of making a three-dimensional object as claimed, except that Hopkinson et al does not explicitly teach the steps of treating with microwave radiation and providing a flow aid. Droscher et al (see the entire document, in particular, col. 3, line 66 to col. 6, line 25) teaches a process of making a three-dimensional object including the step of treating with microwave radiation, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Hopkinson et al in view of Droscher et al principally in order to control the energy supplied to the pulverulent material by using microwave radiation (note that Hopkinson et al (see paragraph [0082] teaches that different types of radiation may be used). Zhu et al (see the entire document, in particular, col. 2, line 17; col. 16, lines 51-65; Table 2) and Wills et al (see the entire document, in particular, col. 2, lines 22-26; Table 2) teach a process of making a three-dimensional object including the step of providing a flow aid, and such would have been obvious to one of ordinary skill in the art at the time the invention was made

in the process of Hopkinson et al in view of either Zhu et al or Wills et al principally in order to reduce the compaction effect, prevent powder clumping and manufacture a desired three-dimensional object.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkinson et al (U.S. Patent Application Publication 2006/0180957 A1) in combination with Droscher et al (U.S. Patent 6,243,616 B1) and either Zhu et al (U.S. Patent 6,833,185 B2) or Wills et al (U.S. Patent 6,900,254 B2) as applied to claims 1-5, 8, 9, 12-14 and 26-31 above, and further in view of Narang et al (U.S. Patent 5,980,813 A).

Narang et al (see the entire document, in particular, col. 7, lines 52-56) teaches a process of making a three-dimensional object including the step of heating an object in a microwave oven and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Hopkinson et al in view of Narang et al principally in order to heat-treat a formed three-dimensional object.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkinson et al (U.S. Patent Application Publication 2006/0180957 A1) in combination with Droscher et al (U.S. Patent 6,243,616 B1) and either Zhu et al (U.S. patent 6,833,185 B2) or Wills et al (U.S. Patent 6,900,254 B2) as applied to claims 1-5, 8, 9, 12-14 and 26-31 above, and further in view of Sherwood (U.S. Patent Application Publication 2003/0209836 A1).

Sherwood (see the entire document, in particular, paragraphs [0008], [0017] and [0030]) teaches a process of making a three-dimensional object including the step of using a protic liquid (e.g., trimethylolpropane), and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Hopkinson et al in view of Sherwood principally in order to reduce oxygen inhibition.

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkinson et al (U.S. Patent Application Publication 2006/0180957 A1) in combination with Droscher et al (U.S. Patent 6,243,616 B1) and either Zhu et al (U.S. Patent 6,833,185 B2) or Wills et al (U.S. Patent 6,900,254 B2) as applied to claims 1-5, 8, 9, 12-14 and 26-31 above, and further in view of van der Geest (U.S. Patent 6,403,002 B1).

van der Geest (see the entire document, in particular, col. 2, lines 45-53) teaches a process of making a three-dimensional object including the step of using glass beads (as fillers), and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Hopkinson et al in view of van der Geest principally in order to impart desired properties to the three-dimensional object.

8. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkinson et al (U.S. Patent Application Publication 2006/0180957 A1) in combination with Droscher et al (U.S. Patent 6,243,616 B1) and either Zhu et al (U.S. patent 6,833,185 B2) or Wills et al (U.S. Patent 6,900,254 B2) as

applied to claims 1-5, 8, 9, 12-14 and 26-31 above, and further in view of Liu et al (U.S. Patent Application Publication 2002/0145213 A1).

Liu et al (see the entire document, in particular, paragraphs [0042], [0045] and [0047]) teaches a process of making a three-dimensional object including the step of using colorants (e.g., pigments), laser-activatable additives (e.g., photoinitiators) and coated ceramic or metallic particles, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Hopkinson et al in view of Liu et al principally in order to manufacture a desired three-dimensional object.

#### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-9, 11-19 and 26-31 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leo B. Tentoni/  
Primary Examiner, Art Unit 1791